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March 25, 2010

Joseph F. LeMay, P.E.
Office of Site Remediation and Restoration
USEPA Region 1
5 Post Office Square, Suite 100
Boston, M A 02109

Re: Response to USEPA February 25, 2010 review comments regarding UniFirst's Revised IAQA/VI Scope of Work, dated February 17, 2010

Dear Mr. LeMay:

This letter has been prepared on behalf of UniFirst Corporation (UniFirst) to provide responses to comments provided by the United States Environmental Protection Agency Region 1 (USEPA), in consultation with MassDEP, in a letter dated February 25, 2010 (USEPA Comment Letter) regarding the *Indoor Air Quality and Vapor Intrusion Assessment Scope of Work* (SOW). The original SOW was submitted to the USEPA on October 9, 2009 for the UniFirst Source Area Property (the Site; 15 Olympia Avenue, Woburn, MA), and on February 18, 2010, UniFirst provided responses to EPA's comments on that SOW.

Below, we provide responses to the comments in the USEPA Comment Letter. A revised SOW for collection of sub-slab vapor and indoor air data in the existing on-property building (Revised IAQA/VI SOW) and associated revised IAQA/VI Sampling Quality Assurance Project Plan (QAPP) are attached to this letter. The Revised IAQA/VI SOW reflects the sampling point adjustments agreed to during a March 15, 2010 site visit with representatives from EPA's contractor and MassDEP and shown on the "EPA revised UniFirst VI Sampling Location figure 03-24-10" transmitted to UniFirst by USEPA in an email dated March 24, 2010. The Revised IAQA/VI SOW also includes a final analyte compound list and specifies target laboratory detection limits for analytes in vapor samples, which were discussed in a March 8, 2010 conference call with EPA and its contractors and in subsequent email correspondence.

Assuming timely review and approval of the revised IAQA/VI SOW and Sampling QAPP, UniFirst anticipates conducting an initial round of sub-slab vapor and indoor air sampling on April 11, 2010.

RESPONSE TO COMMENTS

EPA Response to UniFirst Comment #6 Response

Summary of Comment: Since the collection of shallow groundwater VOC data is the first screening step of the vapor intrusion (VI) pathway, at a minimum, any compound that historically was detected at a concentration that exceeds the VI groundwater screening criteria is recommended for inclusion in the *groundwater* sampling program. This would include:

- 1,1,2-trichloroethane
- 1,2,4-trimethylbenzene
- 1,2-dichloropropane
- 1,4-dichlorobenzene

- bromodichloromethane
- chlorobenzene

In addition, 1,3-dichlorobenzene, which has no screening criteria, should be retained since the screening criteria for 1,4-dichlorobenzene is a reasonable surrogate, and there is a 1,3-dichlorobenzene detection that exceeds the 1,4-dichlorobenzene screening value. The above list of compounds should be included in the groundwater sampling program. Any compound that exceeds a screening criteria, even if the exceedance occurs only once, has the potential to contribute to cumulative risks and hazards above risk management criteria, considering that the single exceedance could occur in a critical location (i.e., immediately upgradient of a residential home). Please update the Scope of Work and QAPP accordingly.

RESPONSE: The EPA Response to UniFirst Comment #6 Response refers to groundwater screening samples, not sub-slab or indoor air samples, and thus is not relevant or applicable to our IAQA/VI SOW comment response. However, we assume that this response represents EPA's comment on the analyte list proposed by UniFirst and Grace for the separate, off-property VIA groundwater sampling effort. UniFirst does not agree with the list of COPCs recommended by EPA as analytes for this SOW. UniFirst does not agree that one exceedance of a conservative screening level can pose significant risks to human health, and it is not EPA policy to assume that one exceedance of a conservative screening level should guide site characterizations and risk assessments. Risk assessments under the Superfund program are governed by Risk Assessment Guidance for Superfund (RAGS) (EPA, 1998)[1]. However, UniFirst is committed to moving forward with this IAQA/VI SOW and so will include the seven recommended compounds on the sub-slab vapor and indoor air analyte lists so as to maintain consistency with the list of analytes anticipated for groundwater screening samples to be collected as part of the separate groundwater sampling effort. This should be in no way be construed as an agreement to any of the principles that EPA has espoused in support of its proposed Screening Criteria, analytes, and analytical reporting limits, which UniFirst contests.

EPA Response to UniFirst Comment #7 and #33 Response:

Summary of Comment: EPA has followed its adopted procedures in developing the screening levels stipulated for this SOW. [...] Analysis and modification of the screening levels should occur during the risk assessment, not during the data collection stage. [...] The Superfund process requires that current and future land use be evaluated in the risk assessment process. A risk-based determination must be provided in order for institutional controls or other restrictions on property use to be implemented at a site. Therefore, future residential use must be considered to provide the necessary risk-based determination as to any future land use controls that will be required. [...] Please find attached a revised screening level table which further updates the December 18, 2009 table through the application of additional toxicity values available through the RSL table. [...] This screening table shall be used as the groundwater Vapor Intrusion Residential Screening Criteria at the Wells G&H Site (e.g., UniFirst, WR Grace). Please update the Scope of Work and QAPP accordingly. The purpose of providing screening levels at this point is primarily to assist in developing PALs, such that the data gathered will be of sufficient quality for the future intended use of the data. Possible future uses of the groundwater and

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[1] *USEPA, 1998. Risk Assessment Guidance for Superfund. Volume I. Human Health Evaluation Manual. Part A. EPA/540/1-89/002.*

indoor air data may be to indicate the need for future investigation (e.g., soil gas sampling if groundwater screening levels are exceeded in the residential neighborhood) or to perform a future risk assessment (e.g., assess indoor air risk within the UniFirst building). Should a risk assessment be necessary for indoor air at the UniFirst building, the screening criteria specified should be used to select COPCs. However, appropriate exposure assumptions should then be used to assess current commercial exposures as well as future potential residential exposures to indoor air.

RESPONSE: Again, portions of this EPA Response to UniFirst Comment #7 and #33 Response refer to groundwater screening samples, not sub-slab or indoor air samples, and thus are not relevant or applicable to our IAQA/VI SOW comment response. A response to comments provided by EPA in regard to the VIA scope of work being developed in coordination with WR Grace will be transmitted separately to EPA.

UniFirst does not agree that the EPA-proposed screening levels are consistent with EPA policy (EPA, 2002)[2]. EPA (2002) uses a HQ=1.0 for non-carcinogenic constituents and does not propose the use of screening criteria that are lower than the currently applicable MCLs. A memorandum prepared by Brian Magee of ARCADIS-US that points out many of the problems with EPA's proposed screening levels will be submitted with the VIA Response to Comments letter. UniFirst also does not agree that compounds cannot be screened out at the data collection stage, or that residential screening levels are appropriate for this property. However, UniFirst is committed to moving forward with the IAQA/VI SOW and has specified TO-15 SIM analysis in the revised SOW and QAPP as necessary to obtain reporting limits from the laboratory that are lower than or equal to the target indoor air concentration screening levels provided in Attachment 1 to EPA's letter. This should be in no way be construed as an agreement to any of the principles that EPA has espoused in support of its proposed Screening Criteria, analytes, and analytical reporting limits, which UniFirst contests.

EPA Response to UniFirst Comment #9 Response:

Summary of Comment: Sampling for APH compounds only, while excluding the APH petroleum hydrocarbon fractions, is ignoring a potentially large mass of volatile petroleum hydrocarbons that may be present at the site. Target compounds (e.g., BTEX) typically make up a small percentage of the total mass of petroleum compounds that may have been released at the site. Therefore, APH fractions (C5-C8 aliphatics, C9-C12 aliphatics, and C9-C10 aromatics) must be included in the analytical program along with the APH target compounds. Please update the Scope of Work and QAPP accordingly.

RESPONSE: UniFirst responded to this comment when a revised list of analytes and reporting limits was provided to EPA on March 5, 2010. During a March 8, 2010 conference call with EPA and its oversight contractor, UniFirst was advised for the first time that EPA intended to direct UniFirst to analyze samples using the Massachusetts APH method. Since that conference call, UniFirst has identified a laboratory able to perform the Mass APH method and revised the SOW and QAPP to reflect the change in analytical method and reported fractions for APH analysis. It is important to note that none of the analytes measured in the Massachusetts APH method are compounds for which the Record of Decision (ROD) or the Consent Decree establishes any assessment or clean-up obligations. UniFirst has agreed

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[2] *USEPA, 2002. OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). EPA530-D-02-004. November.*

to include the Massachusetts APH method and analytes solely for purposes of expediting agreement with EPA on an approved SOW and QAPP. This should in no way be construed as an agreement to expand the compounds of concern, amend the ROD, or extend any obligations under the Consent Decree.

EPA Response to UniFirst Comment #10 Response:

Summary of Comment: Please inform EPA of any wells identified as "non-sampleable", as soon as possible, so EPA can evaluate the need for any additional well installations.

RESPONSE: Monitoring well evaluations are not part of this SOW; they will be completed as part of the VIA scope of work being developed in coordination with WR Grace. A response to comments provided by EPA in regard to that scope of work will be transmitted separately to EPA.

EPA Response to UniFirst Comment #11 Response:

Summary of Comment: Please find attached copies of EPA Region 1 revised low flow groundwater SOPs dated January 19, 2010.

RESPONSE: The SOP was not attached but has been obtained by other means.

EPA Response to UniFirst Comment #16 Response and Revised SOW pages 11 and 14:

Summary of Comment: The indoor air samples should be collected over an 8-hour period to reflect building occupancy. To obtain a sub-atmospheric sample over an 8-hour period using a 6-lioter canister, the flow rate should be approximately 10 mL/min; this will result in an ending vacuum in the canister of approximately 6 inches of mercury. The language in the SOW page 11, 2nd paragraph, 4th sentence should be changed to reflect the information stated above. Note: EPA's prior December comment regarding 0.1 L/min-0.2 L/min flow rates was applicable to sub-slab sampling, not indoor air sampling.

For sub-slab soil gas canister sampling, if a flow rate of 0.1 l/min (100 ml/min) is used, the sampling period would be 1-hour. If a flow rate of 0.2 l/min (200 ml/min) is used and the canister is allowed to reach atmospheric pressure (0 gauge pressure), the sampling period would be 30 minutes. The language in the SOW page 14, 1st paragraph should be changed to reflect the information stated above.

In the SOW on page 11, 3rd paragraph, the last sentence indicates an indoor air duplicate/replicate canister sample will be collected by placing two 6-liter canisters side-by-side with their ports connected using a T-connection. It is recommended that the T-connection not be used and the canisters simply be placed side-by-side to collect a duplicate sample.

RESPONSE: The revised SOW reflects the changes requested by this comment.

EPA Response to UniFirst Comment #36 Response:

September 2010 is currently preferred.

RESPONSE: UniFirst will evaluate and discuss with EPA the timing of the second round of IAQA/VI sampling following completion of the first IAQA/VI sampling event.

Scope of Work:
Page 17, Section 8.0, References: Correct the ASTM method reference to reflect the current version of the method. Revise the SOW accordingly based on the above responses.

RESPONSE: The revised SOW References reflect the change requested by this comment.

Specific Comments on the Quality Assurance Project Plan, Revision 0, February 2010

RESPONSE: The revised QAPP reflects the changes requested by these comments.

Sincerely yours,

THE JOHNSON COMPANY, INC.

By: Linda Kay for:
Bettina L. Longino, Ph.D.
Senior Engineer

By: Michael B. Moore
Michael B. Moore, P.G.
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cc: David Sullivan, TRC Solutions
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